UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
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Office of Railroad Policy and Development
USDOT Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Subject: Draft Environmental Impact Statement (DEIS) & Section 4(f) Evaluation Baltimore & Potomac Tunnel Project, Maryland 2016 CEQ #20150353

Dear Ms. Fishbourne:

In accordance with Section 102(2) (c) of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4332(2) (c), Section 309 of the Clean Air Act, 42 U.S.C. § 7609, and the Council on Environmental Quality (CEQ) regulations, 40 CFR Parts 1500-1508, the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) and the Section 4(f) evaluation for the Baltimore & Potomac Tunnel Project prepared by the Federal Railroad Administration (FRA).

As you are aware, the purpose of the proposed action is to address the structural and operational deficiencies of the existing Baltimore & Potomac Tunnel, improve passenger rail services, and support existing and future demands along the Northeast Corridor. The alternatives considered in the DEIS include four alternatives, one No-Build and three Build Alternatives – 3A, 3B, 3C, respectively. The No-Build Alternative would include the continued use of the existing tunnel with no significant improvements other than routine maintenance. The existing 143 year old tunnel is actually a series of a three tunnels (Gilmor St. Tunnel, Wilson St. Tunnel and the John St Tunnel) with two day lighting sections. It travels north and south on the western side Baltimore City. The two-track tunnel system is one of the oldest structure along Amtrak's Northeast Corridor. The Build Alternatives, 3A, 3B and 3C would provide for a 4-tube tunnel system each ranging in length from 1.91 miles to 2.23 miles and traveling in a wide arch north of the existing tunnel. Each tunnel bore would be 20ft tall and 30ft wide.

The DEIS does not identify the selection of a Preferred Alternative; the Preferred Alternative will be identified in the Final EIS and/or Record of Decision (ROD) and will be based on how the Preferred Alternative meets Purpose and Need, an assessment of the rail

operations, engineering transportation, cost, construction, an assessment of all the environmental impacts, and on public and agency comments received. Since a Preferred Alternative was not selected in the DEIS, EPA has reviewed and rated each of the build alternatives. EPA has rated each of the alternatives an EC-2 (Environmental Concerns/Insufficient Information), according to the EPA rating system described on the website: www.epa.gov/compliance/nepa/comments/ratings.html. These ratings are based on some deficiencies and area of concerns including Climate Change, Environmental Justice, noise and vibration, cultural resources, air quality, hazard material management, and Children's Environmental Health. EPA requests additional information in the Final EIS on alternative locations for ventilation plants, construction staging areas, sediment and erosion control during construction, potential added diesel emissions from the MARC and freight trains, and disclosure of emergency planning. EPA recognizes efforts made to evaluate and address community concerns and impacts and to coordinate this project with the community. The DEIS includes several environmental commitments, for example limiting hours of construction and implementing a rodent control program. These should be memorialized in the Final EIS and Record of Decision (ROD). While the DEIS includes several environmental commitments, there still remains a great deal of information that should be shared with the public, including final information regarding noise, vibration, utility disruptions, providing pre-construction building inspections, and emergency planning. EPA suggests that FRA consider the best way to share information, some of which may not yet be available, with the public after the completion of the ROD. EPA recommends alternatives to minimize loss of community cohesion, quality of life and historic locations, including in the siting of ventilation plants. The basis of EPA's ratings are detailed in the enclosed Technical Comments document.

Thank you for the opportunity to review this project. If you have questions regarding these comments, the staff contact for this project is Mr. Kevin Magerr; he can be reached at 215-814-5724 or Magerr.kevin@epa.gov

Sincerely,

Barbara Rudnick
NEPA Team Leader
Office of Environmental Programs

Technical Comments for the DEIS & Section 4(f) Evaluation – Baltimore & Potomac Tunnel Project

General Comments

1. Page 239, the construction of the tunnel (Alternatives 3A, 3B, 3C) would involve horizontal mining (1.91-2.23 miles), trench cutting and fill construction technique for the portal sections. It is anticipated that the construction activity will create a significant amount of construction debris and excavation spoils. The Final EIS should provide an estimate of this material, how it will be managed and the location of the ultimate disposal.

2. The DEIS does not provide any information on the location, size and the potential impacts of the construction lay-down and staging areas. This information should be included in the Final EIS.

3. All three Build Alternatives will require three ventilation plants. Two of the plants are located at either end of the tunnel (north and south portal) and integrated into the tunnel portal construction. However the third tunnel (Intermediate Ventilation Plant) will require surface and subsurface disturbance to connect the ventilation shaft to the tunnel construction. The preferred intermediate ventilation plant would be located at the south side of the Brookfield Avenue and Whitelock Street intersection in the Reservoir Hill neighborhood. The Reservoir Hill neighborhood is a Historic District and is listed on the National Register. The site would displace the community garden and a community gathering and learning space. The community garden and the community gathering spaces are considered integral to the neighborhood character of Reservoir Hill by its residents. On Page 56 of the DEIS identifies additional alternative sites for the intermediate ventilation plant proposed by the public. EPA recommends that these alternatives be seriously considered; in particular, the Druid Hill Avenue between Whitelock Street and Clendenin Street site. This site consist of a block of abandon houses adjacent to an industrial facility. Further it is approximately the same distance to the tunnel alignment as the preferred third ventilation site.

4. The MARC commuter service is expected to replace existing electric locomotives with diesel powered locomotives by 2019. Based on operational projections, the total number of daily commuter train service using the tunnel would be 164 trains. It is unclear if the air quality analysis of this increase in diesel emissions was evaluated locally in the areas of the ventilation facilities on the community, particularly considering the most sensitive portion of the community: the elderly, health-impaired and young children.

5. For possible operational rail service delays, provisions should be made to include designating acceptable waiting locations, away from homes, schools, heavily-used parks, and waterways. If locomotives could be laying over in these locations for extended periods, authorities should consider furnishing "portable air" and generators to supply electric power to enable locomotives to shut down safely.

6. Because infrastructure and equipment is always subject to disuse and misuse, and operations can achieve or undermine efficiency, the FRA should execute binding agreements with the railroads and system operators that:

- Require use of idle reduction infrastructure where provided.
- Establish engine shutdown policy/protocol (based on duration of wait, season, onboard and trackside equipment, etc.).
- Designate waiting locations.

7. Greater details should be included in the Final EIS on the erosion and sediment controls during construction and the stormwater and groundwater control measures during tunnel operations.

Specific Comments

Climate Change

1. Page 129, the DEIS summarizes the December 2014 CEQ draft guidance (Revised Draft Guidance for Greenhouse Gas Emissions and Climate Change Impacts). Although still a draft, it provides helpful general guidelines that, unfortunately, were not applied in the DEIS. It would be beneficial for the Final EIS to provide an analysis with details on how the agency considered the GHG emissions of each alternative. If warranted, the Final EIS would also benefit from including a qualitative description of relevant climate change impacts, an analysis of emissions from reasonable alternatives and/or practicable mitigation measures to reduce project-related GHG emissions. It is recommended that the "Affected Environment" section of the EIS include a summary discussion of climate change and ongoing and reasonably foreseeable climate change impacts relevant to the project and project area, based on U.S. Global Change Research Program (http://www.globalchange.gov) assessments. This will assist in identifying potential project impacts or other factors that may be exacerbated by climate change and inform consideration of measures to adapt to climate change impacts. (Among other things, this will assist in identifying resilience-related changes to the proposal and provide background for the reader and decision-maker on data that might be used in resilience design).

2. Page 156, the DEIS lists as one of several bullets that the project design would result in a "cost avoided" based on Climate Change resiliency. Nothing further is said, including no detail on design considerations to accommodate climate change resiliency. The Final EIS would benefit from the inclusion of details on how the project design incorporates concepts of resiliency from the effects of climate change, data that was used to assist in design, and considerations that were made in design alternatives.

3. Page 157, the DEIS discusses the benefits of three action alternatives in removing a chokepoint from the NEC and moving commuters from reliance on automobiles to more energy-efficient train use. However, the DEIS makes no connection between these benefits and GHG

emission reductions. The FEIS would be far stronger if it analyzed and compared among alternatives the annual CO_{2e} tons that FRA actions might save.

Environmental Justice

1. The goal of the Environmental Justice (EJ) assessment is to identify areas of potential EJ concern using objective, clearly-definable methodology, to identify the potential adverse impacts associated with the project, mitigations for those impacts, and other relevant data that may help to better define the situation from an EJ perspective in a comprehensive and coherent manner. EPA is concerned that environmental justice issues may not have been adequately addressed, that additional documentation of impacts on populations of EJ concern may be needed, and that there may be impacts to populations of concern. Comprehensive steps should be taken to assure early, frequent and appropriate engagement of the community in the decision-making process.

2. The low income benchmark may be inaccurate. Low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports, Series P-60 on Income and Poverty. In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect. The approach to determine the appropriate benchmarks include:

- Apply the 50% test (all areas that are more than 50% are areas of EJ concern. Benchmark value should be compared to the state or county average)
- If the percent minority population is greater than the state or county average, then this would equal the Area of Potential EJ concern; OR
- Set a benchmark that exceeds the state or county average by a given percentage (*e.g.*, taking 110% of the state or county average).

3. The Study Area currently contains six publicly-owned housing developments, with a total of 2,467 units, dispersed throughout the Study Area. There are also 22 affordable housing apartment developments with a total of 3,111 units. The Final EIS should include the percentage of publicly owned housing developments and affordable housing developments impacted in the City of Baltimore.

4. As stated in page 176, "Executive Order 12898 requires federal agencies ensure effective, meaningful involvement of low-income and minority populations in project planning and development and potentially affected EJ populations have fair and equal access to information." The Final EIS should include a listing of low-income and minority community organizations or representatives engaged in the project and dates of involvement.

Noise and Vibration

1. The impacts from noise and vibration appear to be significant, as stated on page 234 and elsewhere. The exceedances of FTA frequent impact criteria for Noise and Vibration include:

- Alternative 3A - Noise 215 residences, Vibrations 69 residences
- Alternative 3B – Noise 303 residences, Vibration 138 residences
- Alternative 3C – Noise 265 residences, Vibration 92 residences

2. It is unclear in the DEIS what the impacts of noise and vibration are during construction, how the communities will be informed and what mitigation measures will be implemented.

3. EPA suggest the following noise and vibration preventative and mitigation measures:

- Where practicable, schedule individual project construction activities to avoid or minimize adverse impacts. Consider using noise barriers, including temporary barriers, semi-permanent barriers, noise curtains, and/or noise tents. Consider using vibration reducing techniques or mitigation measures.
- Coordinate construction activities with projects under construction in adjacent and nearby locations to avoid or minimize impacts.
- Consider condition of surrounding buildings, structures, infrastructure, and utilities, where appropriate. Consider whether any special protection is needed for historic properties.
- Prepare contingency measures in the event established limits are exceeded. Consider steps to avoid generating noise/vibration from cumulative operations that may exceed noise limits.
- Consider establishing a public communication plan in order to keep the public informed and attempt to reduce public frustration. This plan could include regular public meetings, emails, a hotline, and other notices.
- Consider whether a noise technician/acoustical engineer is needed during peak construction phases.
- Consider restricting the use of certain types of equipment during noise/vibration-sensitive hours. Consider restricting night work all together.

Cultural Resources

1. Page ES 6, Table 2: Summary of Potential Engineering and Environmental Impacts provides a clear and concise summary of the impacts for the action alternatives (3A, 3B, 3C) and the No-build Alternative. It is evident from this chart and the Cultural Resources sections of the DEIS that of the build alternatives, Alternative 3A is the alternative with the least cultural resources/Section 4(f) properties impact (as well as environmental and community impacts) in comparison with the other two action alternatives (3B and 3C) as summarized below.

	Alternative 3A	Alternative 3B	Alternative 3C
Adverse Effects for Historic Properties	6 (6 contributing historic elements impacted)	8 (87 contributing historic elements impacted)	10 (132 contributing historic elements impacted)
Area of Surface Disturbance within	12.0 acres	12.0 acres	20.3 acres

Historic District			
Use of Section 4(f) Properties	5 properties	11 properties	10properties

2. Page ES-15 (3. Section 4(f) Properties) and pages 183-194 (Chapter 6), discuss specific impacts to the Section 4(f) properties. In particular, ***Alternative 3A*** would result in potential use of five (**5**) Section 4(f) properties requiring the demolition of three (**3**) historic buildings which are contributing elements to the Midtown Edmondson Historic District. ***Alternative 3B*** would result in the use of eleven (**11**) properties qualifying for Section 4(f) requiring demolition of **82** historic buildings or other contributing elements to the Midtown Edmonson Historic District. In addition, construction of the south portal would require demolition of five (**5**) historic buildings or other contributing elements to the Greater Rosemont Historic District. ***Alternative 3C*** would result in the potential use of ten (**10**) Section 4(f) properties. In addition, this would result in the demolition of seven (**7**) historic buildings or other contributing elements to the Midtown Edmondson Historic District, **31** historic buildings or other contributing elements to the Greater Rosemont Historic District and **28** historic buildings or other elements contributing to the Edmondson Avenue Historic District. As is evident, the specific impacts discussed within each alternative is far greater (at least for Alternative 3B and 3C) than the total number of Section 4(f) properties impacted for each alternative (Alternative 3A – 5 properties, Alternative 3B – 11, Alternative 3C – 10); Specific impacts (Alternative 3A – 3, Alternative 3B – 87, Alternative 3C – 66). It is not clear if there is overlap of effects for Historic Properties and Section 4(f) properties or if these impacts are distinctly separate. Although it is obvious that impacts to both Historic Properties and Section 4(f) is significant and adverse (for all action alternatives) this should be made clear in the Final EIS. Table 2 should include the total number of individual impacts within each Section 4(f) property (as shown below) for each action alternative as was done for "adverse effects for historic properties."

	Alternative 3A	Alternative 3B	Alternative 3C
Use of Section 4(f) Properties	5 (3 individual impacts)	11 (87 individual Impacts	10 (66 individual impacts)

3. Page 179 (Chapter 6) references the *Architectural Historic Properties Effects Assessment Report* which provides details of individual historical property effects. This document was not included as part of the Appendix. EPA recommends that this document be available for public review and be made part of the Final EIS documentation.

Air Quality

1. In an effort to attain and maintain National Ambient Air Quality Standards the FRA should control or minimize construction emissions through use of the following typical Best Management Practice (BMPs) in association construction:

- Utilize appropriate dust suppression methods during on-site construction activities. Available methods include application of water, surfactants, soil stabilizers, or vegetation; use of enclosures, covers, silt fences, or wheel washers; and suspension of

earth-movement activities during high wind conditions. Consider implementing a dust control program.

- Maintain a speed of less than 15 mph with construction equipment on unpaved surfaces as well as utilize ultra-low sulfur diesel (ULSD) fuel in off-road construction equipment with an engine horsepower (HP) rating of 50 HP or above fuel with lower sulfur content.

- Employ a construction management plan in order to minimize interference with regular motor vehicle traffic.

- Use electricity from power poles instead of generators whenever possible.

- Repair and service construction equipment according to the regular maintenance schedule recommended for each individual equipment type.

- Use low-VOC architectural materials and supplies equipment.

- Incorporate energy-efficient supplies whenever feasible.

- Consider whether a PM-10 or PM-2.5 monitoring program should be utilized.

- Use diesel engine retrofit technology in off-road equipment to further reduce emissions. Such technology may include diesel oxidation catalyst/ diesel particulate filter (DOC/DPF), engine upgrades, engine replacements, or combinations of these strategies.

- Limit unnecessary idling times on diesel-powered engines to three minutes.

- Locate diesel-powered exhausts away from fresh air intakes.

- Control dust related to the construction site through a Construction Environmental Protection Program (CEPP), including a Soil Erosion and Sediment Control Plan that includes, among other things, spraying of a suppressing agent (nonhazardous, biodegradable) on dust piles, containing fugitive dust, and adjusting construction activities to respond to meteorological conditions, as appropriate.

2. The build alternatives tunnel dimensions would provide access for larger freight trains including Plate H freight cars. This would facilitate freight access between the southwest and the northeast portions of the Port of Baltimore. The existing tunnel limits freight access to two freight trains per day. Since the build alternatives will provide increased freight capacity, the FEIS should estimate increased freight traffic through the proposed tunnel and potential localized air quality impacts.

Hazardous Materials Management

1. The potential number of hazardous material sites ranges from 92 to 153 sites along alternative alignments and may include dry cleaners, rail maintenance, gas station and automotive repairs. As a precautionary measure, the tunnel project should include a hazardous material contingency plan that would address how to properly remove, handle and dispose of any hazardous material that may be encountered and or related to the construction activity.

2. As stated on page 82, cargos to/from specific railroad customers of the freight trains that pass through the B&P Tunnel include vegetable oil; plastic pellets; paper; lumber; and produce. However, there are no regulations or restrictions which would preclude other forms of freight cargo on these trains, providing the material is moved in accordance with federal transportation rules. There is concern that the potential material could include hazardous materials. We recommend that emergency contingency plans in place to address potential spills or other accidents as a result of carrying these materials be disclosed to the public through the NEPA process or communicated to the public in the future.

Children's Environmental Health

Executive Order 13045 on Children's Health and Safety directs that each Federal agency shall make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and shall ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to health and safety risks. Children may be more vulnerable to the toxic effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed. Although the DEIS identifies communities and public schools located near the proposed project area, the DEIS does not clearly describe the potential direct, indirect, and cumulative impacts of the project on children's health.

1. Children's Environmental Health does not appear to have been included in the DEIS. The FRA Executive Order 13045 for the Protection of Children from Environmental Health Risks and Safety Risks. Without analysis or documentation on this topic, it cannot be assumed that there is no potential risk associated with the proposed project that may adversely affect children's health.

2. EPA recommends that the EIS include an evaluation of potential direct, indirect and cumulative health impacts of the project that may have a disproportionate effect on children's health. This may include evaluating the excavated soil lead levels, and additional consideration to dust reductions and stockpile stabilization techniques. We also suggest evaluating noise and vibration impacts associated with the project specific to children. Consider evaluating potential impacts associated with pest/rodent extermination specific to children.